

GLOBAL MARKET OUTLOOK



2019 — What's ahead amid slowing growth

The indicators tell us that the pace of global economic growth has peaked. Numerous factors are at play in slowing the expansion that followed the 2008 financial crisis: stricter monetary policy in many regions, the lagging effect of a series of U.S. interest rate increases coupled with the fading benefits of fiscal stimulus in the U.S. and the ongoing trade policy tumult introduced by the Trump Administration. These issues and other potential headwinds are likely to slow the pace of U.S. and global growth. What might it all mean for the markets and investors in 2019?

IVY VIEW



U.S. GDP grows around 2.5%, but faces headwinds

The strength of the **U.S. economy** set the pace for global growth during 2018. The U.S. looks to finish the year with its gross domestic product (GDP) growing 2.9%, one of the strongest rates since the Great Recession that began in 2008. This expansion was aided by the Tax Cuts and Jobs Act of 2017, an infusion of fiscal spending and strong confidence among consumers and businesses alike.

Our optimism about the economy wanes somewhat in 2019. We forecast U.S. GDP growth stabilizing around 2.5% with the possibility of further deceleration during the year. Our subdued outlook is based in part on the U.S. Federal Reserve (Fed) monetary policy the last few years. The federal funds rate increased 200 basis points (bps) from December 2015 through December 2018 to the current range of 2.25–2.50%.

The Fed has indicated that short-term interest rates are close to what it believes to be neutral, meaning that policy is neither loose nor restrictive. We believe slower economic growth and lower oil prices will keep inflation well contained in early 2019, the same reasons the Fed decided to take a more dovish tone and ease its pace of quarterly rate hikes. Our base case belief is the Fed will raise rates once, possibly twice, in 2019.

Interest rate hikes have a lagging impact on the economy and could have a lasting effect throughout 2019. U.S. growth also faces headwinds from the diminished benefits of the 2017 tax cuts and stimulus, as well as continued murkiness surrounding the country's trade policy, which has been a headwind to confidence and economic growth over the past year.

IVY VIEW



There may be light at the end of the tunnel on U.S.-China trade relations

There were signs of some progress on the **U.S.-China trade disputes** in the final weeks of 2018. Recently, President Donald Trump and Chinese President Xi Jinping agreed to postpone escalation of the trade war, with Trump agreeing to postpone the planned increase in tariff rates on Chinese goods while Xi agreed to increase imports of U.S. goods and begin a dialogue with the U.S. on key issues. While we believe it could be difficult to get a resolution by early 2019, we are more hopeful that there will be a truce later in the year as Trump focuses on improving the economic outlook ahead of the 2020 election.

IVY VIEW



Yield curve likely to stay flat, recession not on horizon

There has been increasing focus on the possibility of an inversion in the **yield curve**, as one section of the yield curve inverted for the first time in more than 10 years, with the yield on 5-year notes falling below 3-year notes. While an inverted yield curve has been a precursor to every modern-era recession, we do not believe a downturn in the U.S. economy is on the horizon.

The recent inversion occurred in only one part of the yield curve. The spread in yields between the 2-year and 10-year U.S. Treasury notes has tightened in the past year based on several factors, including the expectation that the U.S. Fed will steadily increase interest rates. In early December, when one part of the yield curve briefly inverted, the 2- and 10-year spreads were only 11 bps, with the 2-year at 2.80% and the 10-year at 2.91%.

While an inversion on the 2- and 10-year spreads has predicted recessions in the past, a flat yield curve, on the other hand, does not seem to have much predictive power. We believe the yield curve will stay flat for the foreseeable future.

The **U.S. labor market** made a strong finish to 2018 with the unemployment rate around 3.7% — the lowest level in a generation. However, we believe the pace of job growth will moderate in 2019 as the economy slows. After a lengthy stagnant period, wages are on the rise as a result of the increasingly tight job market. We are concerned that the lack of fiscal stimulus, rising interest rates and modest job growth could become a recipe for a slowdown in personal consumption — a key driver of the U.S. economy.

However, we believe that improving **wage growth** overall is likely to offset any dramatic slowing in consumer spending. While business confidence remains at historically high levels for both large corporations and small businesses, optimism has dimmed slightly because of global trade tensions. If business confidence dips further due to slowing economic growth and the related headwinds, we expect companies to lower their capital expenditures or hiring plans.

IVY VIEW



Investigations and political upheaval could ratchet up market volatility

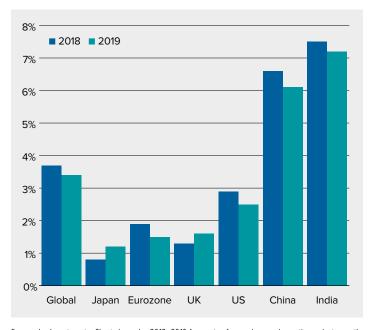
Another wildcard for investors in 2019 is the **political upheaval** in Washington D.C. The ongoing investigation by Special Prosecutor Robert Mueller into a range of issues that could touch President Trump may conclude in early 2019. There is increasing anticipation the Democrat-led U.S. House of Representatives will launch a number of investigations into the Trump Administration in the New Year, with even a possibility that some may call for impeachment hearings. It's impossible to know where the various investigations and hearings may lead, but we do anticipate ripples through the economy and volatility in the markets should Beltway battles ratchet up.

Even though we believe that growth will be weaker in 2019, we are hopeful that the stage will be set for improvement at some point. The combination of a Fed pause, stimulus in China, and a truce in the trade war could set the stage for economic improvement later in 2019 and into 2020.

IVY VIEW



Global GDP growth rate cools to 3.4%



Source: Ivy Investments. Chart shows Ivy 2018, 2019 forecasts of annual gross domestic product growth, all based on purchasing power parity. Past performance is not a guarantee of future results. The gross domestic product growth forecasts are current through December 2018, are subject to change at any time based on market and other current conditions, and no forecasts can be guaranteed.

Our **global growth** forecast is a somewhat more modest 3.4% in 2019, compared with our projected 3.7% in 2018. The change in part is because global growth at the start of 2018 has become less synchronized. We believe the growth rates for different regions of the world will vary, slowing the pace of global economic expansion.

Economic growth in the eurozone was much weaker than expected in 2018 on the back of a general slowdown in global trade and one-off shocks. While trade was a slight drag, poor winter weather early in the year and government mandates on automobiles caused disruptions that depressed performance. We anticipate a tepid growth rate in the eurozone of 1.5% in 2019 with two key geopolitical uncertainties to watch as the year unfolds.

IVY VIEW



Brexit deal will get done; U.K. may see a boost late in the year

After months of "Brexit" consternation, the **United Kingdom** (U.K.) soon could have an agreement on its withdrawal from the European Union (EU), which is scheduled March 2019. Prime Minister Theresa May has been on a political high wire act, trying to appease U.K. Parliament members who want a significant break from the EU as well as those who favor a closer relationship. May narrowly survived a "no confidence" vote among her fellow Conservative party members in December 2018 and still has the arduous task of maneuvering an equitable deal through Parliament before the March deadline.

We believe that the Parliament ultimately will approve a Brexit deal, albeit with agreements that keep the U.K. and EU closely aligned on key issues, such as an alliance on trade and customs centered on the border between the Republic of Ireland and U.K.-controlled Northern Ireland. We anticipate this action could be a boost for U.K. business confidence and lead to improved economic growth in the second half of 2019.

Italy, which faces a significant budget deficit, raised eyebrows after its newly formed government produced a 2019 budget that does not comply with EU rules. The coalition government in Italy believes EU spending mandates have hampered the country, leading to a standoff between Rome and Brussels. Recently, an agreement was reached between Italy and the EU that defuses any short-term tension. However, we believe Italy will continue to be a long-term risk given its high debt, subdued ecnomic growth profile and anti-EU leadership.

Italy's actions, coupled with the Brexit drama, have ignited fears of a possible eurozone breakup. We don't see that happening, but expect this stalemate to continue through the European Parliament elections in May 2019. However, we also think market pressures could trigger a quicker resolution between Italy and the EU because of the subdued growth backdrop.

After an extended period of lackluster economic performance, we believe **Japan** is poised for better growth. We forecast a 1.2% rise in GDP growth for 2019. One wildcard for Japan's economy is an expected increase in the consumption tax to 10% in October 2019 from the current 8%. Historically, tax hikes of this magnitude in Japan have caused meaningful declines in its GDP. Prime Minister Shinzō Abe has pledged to offset the tax hike with fiscal spending, which makes us believe the impact may be more manageable than in the past. We also believe the Bank of Japan will hold tight on its current interest rate position ahead of the implementation of that consumption tax increase.

IVY VIEW



Emerging markets face challenging, but brighter forecast

Emerging markets faced multiple headwinds this year namely, a strong dollar, **China's** focus on deleveraging and regulations, trade wars, volatile energy prices and increased geopolitical risks. By comparison, U.S. returns benefitted from a more attractive growth rate, which was the result of tax reform, lower regulatory pressures and repatriation of overseas earnings.

The U.S.-China trade tumult remains a front and center issue for many emerging market economies. Any resolution to the issue would be critical not just for China, but its other Asian trading counterparts like South Korea and Taiwan. As such, we are positioned cautiously optimistic for a status quo on trade war and no further escalations. We believe China has started loosening policy on the domestic front and we anticipate an easing of policy on regulations, monetary and fiscal side of things, which should be supportive of the domestic economy. We already see early measures that are supportive of the private sector, personal consumption and infrastructure spending and we think more measures are on the way.

IMPACT OF FISCAL REFORM IN SEVERAL EMERGING MARKETS

Country	Beneficiary Of Higher Oil Prices	Status Of Reform Programs
China	No	•
India	No	•
South Korea	No	•
Brazil	Yes	•
Russia	Yes	0
Taiwan	No	•
South Africa	Yes	
Hong Kong	No	•
Vietnam	No	0
In place, notable imIn place, no impact	pact • In place, some impact • No reforms	

Source: Ivy Investment Management Company; selected emerging market countries.

Brazil is still in the early stages of a recovery from a record setting recession. Inflation is very much under control, which should allow Brazil's central bank to keep rates lower in the near term. The president-elect, Jair Bolsonaro, takes office on January 1, 2019, with leadership elections for the upper and lower legislative bodies following in early February.

The new administration has high approval ratings heading into office, and we believe it needs to enact fiscal reforms while the honeymoon lasts. Privatizations of state-owned companies will provide a budgetary buffer, but safety net reforms, like pension and social security, will require heavy lifting.

India continues being relatively more immune to trade-related headwinds elsewhere in Asia. The fall in oil prices offers a respite to country's fiscal pressures that built up earlier in the year and pressured the rupee.

We believe Mexico and South Africa will face geopolitical headwinds in 2019. **Mexico's** incoming president, Andrés Manuel López Obrador, has already proposed a host of market-unfriendly measures like cancelling a construction project of the Mexico City New International Airport. Ongoing political scandals in South Africa are impeding the economic reform efforts of President Cyril Ramaphosa.

South Africa is scheduled to hold general elections in 2019, which could see the ruling African National Congress lose seats in the national assembly. Elections also may impact fiscal and monetary policies emerging markets in 2019, with India, Indonesia and Turkey among the more significant countries to watch.

Equity valuations are another supportive theme in the backdrop for emerging markets. While not at extreme discounts in both absolute and relative terms to developed markets, valuations are below median versus historical levels. Overall, emerging market equities were trading at about 10 times 2019 consensus earnings estimates as 2018 came to a close, or about a 27% discount to developed markets.

Amidst this backdrop, we believe the economic outlook for emerging markets, while challenging, still looks brighter. We expect a slower pace of Fed rate hikes and the slightly softer dollar to ease some of the pressure on emerging markets, giving local central banks a chance to ease rates or take a less aggressive stance on rate hikes. We anticipate additional fiscal stimulus in China at some point in 2019, but the timing and magnitude should be dictated by ongoing negotiations between Beijing and Washington. The recent agreement to cut oil production by the OPEC-plus group appears as a positive in the immediate term but will take several months to see if the proposals actually take effect.

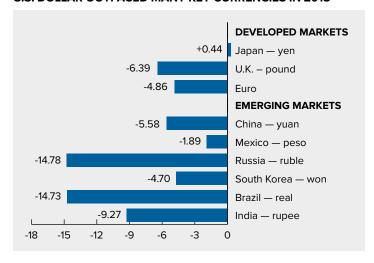
IVY VIEW



U.S. dollar softens, but benefits from relative economic strength

With fewer rate hikes and slower relative U.S. GDP growth, we expect the **U.S. dollar** to have a softer edge in 2019. This will manifest itself in a more balanced performance for the dollar against other currencies, but we think it still will be supported by the relative strength of the U.S. economy.

U.S. DOLLAR OUTPACED MANY KEY CURRENCIES IN 2018



Source: Bloomberg; change in value of selected currencies vs. U.S. dollar for the period 12/29/17 – 12/18/18.

We think major developed-market central banks will follow the U.S. Fed's lead on their own interest rates. The European Central Bank (ECB) has indicated that interest rates will remain at current levels into the second half of 2019. With the deposit rate currently at a negative 40 bps, we believe the ECB will begin raising rates in the third quarter, but don't expect rates to approach zero until December 2019, or early 2020.

We believe the Bank of England will wait until there is a successful result to the Brexit negotiations before it raises interest rates, and we expect two rounds of rate hikes in 2019. Both a Brexit deal and higher rates would support the U.K. pound, which we believe is undervalued.

Market and sector view for 2019

Volatility was the name of the game in 2018 as the global equity markets set record highs only to see those yearly gains erased. The sell off at the end of the year sent the equity indices into correction territory. Several forces conspired to create this environment, including macro events like the global trade slowdown and tightening monetary policy, as well as the staggering of the FAANG (Facebook, Apple, Amazon, Netflix and Google-parent Alphabet) stocks, which have been a major equities catalyst over the past couple of years.

Looking ahead, we believe the markets are likely to remain choppy for some time, but are resolute that the 2019 landscape should present more selective opportunities, with greater emphasis on the fundamentals and quality of asset classes and sectors.

EQUITIES

INFORMATION TECHNOLOGY

- The sector saw a material pullback in equity prices in 2018, with many companies revising earnings lower. We expect more such revisions in the short term, but believe these stocks are forming a bottom.
- Semiconductor stocks were the first to signal a slowdown in the sector, but we think that move is mostly done and believe this group should perform better in 2019. We think demand is likely to be solid, although clarity around the ongoing trade dispute will be a key factor.
- We have a bias toward higher-quality companies that demonstrate resilient business models, strong capital allocation frameworks, meaningful efforts to protect earnings per share, and efforts to return free cash flow to shareholders.
- We think internet-related companies will offer investment opportunities in 2019. In general, internet companies that have cash-rich balance sheets and high free cash flow margins, and that are benefitting from the increased adoption of new services, should be able to weather any economic downturn. That said, the relatively short operating histories of many fast-growing internet companies means the inherent cyclical nature of business is not obvious. We think this situation adds to the importance of our company-specific analysis process.
- As we look to 2019, we are increasingly seeking either internet companies that have no real cyclical aspect in their business models and are not trading at excessive valuations, or company-specific opportunities where we think growth in revenue can accelerate because of reasons other than general economic factors.

HEALTH CARE

- We believe there are potential opportunities in the life science tools and services industry both in the intermediate and long term. This industry provides the tools and services for research and manufacturing of new diagnostics and therapeutics to identify and treat human disease.
- The growth of life science companies has tended to be consistent and sustainable, which may be attractive in a volatile market.

• An unprecedented number of innovative solutions are being tested for approval in humans globally and we expect this trend to continue, given the pace of scientific innovation. While slower global economic growth would have an impact, we still expect high-quality companies in the industry to grow. We tend to favor high-quality companies with lower relative valuations.

CONSUMER DISCRETIONARY, CONSUMER STAPLES

- We think U.S. consumer spending growth in 2019 is unlikely to repeat the rate of 2018. Globally, consumer trends are mixed, with Europe sluggish and China showing signs of slowing from very rapid growth rates in recent years. We believe any escalation of the trade dispute between the U.S. and China would have negative impacts to U.S. companies from higher costs on goods sourced in China, and could hurt consumer spending in both countries if there are price increases.
- We generally again look for high-quality companies in relatively less cyclical categories because of the potential trade issues. We tend to prefer good brands in strong categories with solid management teams, profitable business models and equity valuations that offer the potential for above-average shareholder returns over a multi-year period.
- In the U.S., retailers are facing headwinds, including wage inflation, rising freight costs and margin dilution from e-commerce. We think it will be a tough backdrop in 2019 for many retailers to grow "profit," given these headwinds, although we think there may be opportunities in what we consider defensive areas such as off-price stores, auto parts, so-called "dollar" stores and discounters. We also think there are long-term growth drivers in the e-commerce and online retail segments.
- We think there will be potential opportunities in companies in the consumer staples sector, given its tendency toward a defensive nature. We think the market became overly concerned in 2018 about the pricing power of companies in this sector over fears of an inflationary environment and given the rise of online, private label and discount retailers. In 2019, we think companies with real innovations still can drive growth, and those with market positions in emerging markets may be somewhat insulated from broader headwinds and able to raise prices to support their margins.

FINANCIALS

- We expect 2019 to be a somewhat challenging year for the financials sector. In general, there are fears the U.S. is late in the economic cycle and Fed interest rate increases are becoming a headwind to U.S. bank margins. The flat yield curve also is a negative for profitability in the sector. The demand for credit remains strong, but there are market fears that it may not continue to grow.
- There is concern that the tailwind from strong equity and fixed-income markets may not continue, which could affect companies across the sector. For example, life insurance stocks are highly sensitive to bond yields and returns in equity markets. Volatility in the markets was a key headwind in 2018 and we think the uncertainties looking forward suggest similar pockets of volatility in 2019.
- Within the group, we believe exchanges are in the best position to benefit from market volatility again in 2019 because an increase in trading volume typically accompanies uncertain markets.

INDUSTRIALS

- After a strong start in 2018, industrials took a sharp downward turn due to the toxic combination of tariffs, increases in raw materials like steel and cooper, a stronger dollar and slowed growth in important end-markets, such as China and the eurozone.
- We believe these headwinds will continue to present challenges for companies across the sector at least through the first half of the year.
- However, we see are opportunities on a sub-industry level in an area like aerospace, which has proven to be less cyclical than other industrials over the last 15 years. We are intrigued by certain companies in this group as they are more focused on improving returns and margins than at any other point in recent memory.

ENERGY

- Volatility continues to be a key factor in the world oil market as well as the stocks of energy companies, and we think that is likely to continue in 2019. Strong supply/demand fundamentals deteriorated in the second half of 2018, as demand decelerated and supply was stronger than expected. On the supply side, OPEC nations began ramping up their production in expectation that Iranian exports would be eliminated in November by sanctions. However, the market was surprised when waivers for Iranian exports were granted by the U.S. This development, coupled with stronger than expected U.S. supply growth, lead to a large swing in the oil market to an oversupplied situation. In an effort to bring the market back into balance, OPEC and other nations, agreed to cut production by 1.2 million barrels per day (bpd) starting in January.
- The supply cut by OPEC is divided into two segments: a reduction of 800,000 bpd from OPEC members and a reduction of 400,000 bpd from non-OPEC partners, from an October 2018 baseline and effective January 2019 for a period of six months. OPEC will re-evaluate the situation in April 2019, which is also near the target date for the Iran export waivers to expire. The bulk of the total production cut is likely to come from Saudi Arabia. Russia is expected to represent at least half of the 400,000 bpd reduction from non-OPEC partners. Iran, Venezuela and Libya are exempt from the agreement and are not required to cut their oil output.
- We believe OPEC took a positive and necessary step toward rebalancing the world oil market with its decision and we think the move will help support prices in 2019. We believe that these supply cuts along with continued oil demand growth, despite somewhat slower global economic growth, will eventually lead to a balanced market in 2019.
- We also think OPEC's decision gives U.S. exploration & production companies (E&Ps) the "all-clear" to continue maximizing oil production and taking market share, provided they have the cash flow. Therefore, we believe that U.S. oil output will remain very strong in 2019 at over 1 million bpd. The U.S. has been the main supplier of new capacity over the last five years, and this is likely to continue for the foreseeable future. Continued supply growth and drilling spend is likely to be a relative positive for E&Ps, oil services and refining companies operating in the U.S. Though U.S. onshore production will be the main source of new supply, there are also early signs of an international recovery with some longer-term projects getting funded in 2019.

FIXED INCOME

As the economic cycle continues to mature, we are monitoring different factors from a fixed income standpoint. Notably, rising corporate leverage, historically tight credit spreads and continued flattening of the yield curve amidst rising rates are the most critical factors we continue to monitor and navigate. At this point in the cycle, and based on the factors below, we prefer higher quality credits that possess strong fundamentals, and are seeking to extend duration.

Over the last 10 years, the access to financing has been easy as companies sought financing at low rates. Since 2012, new issuance of investment grade debt has exceeded \$1 trillion, and the three-year span from 2015-2017 saw new issuance of nearly \$4 trillion. The most noticeable increase has been within the BBB-rated segment of the investment grade market.

According to the Bloomberg Barclays indices, BBB credits as a percentage of the investment grade market have grown from below 30% in 2009 to approximately 43% of the investment grade market.¹ While overall fundamentals remain positive, the expected slowdown in economic growth is a risk factor warranting close observation. Any sizable downgrade within BBB credits could raise concerns over the increased leverage we've seen over the past decade.

In addition, credit spreads narrowed considerably prior to the third quarter market volatility. In early October, the high yield index spread tightened to 316 bps, a decade low. In the weeks following, the uptick in market volatility drove spreads wider to approximately 440-450 basis points. We foresee credit spreads widening in 2019 as the markets evaluate earnings and profit growth in the corporate space.

CURRENCIES

We anticipate the U.S. dollar to soften in 2019 due to a pause in rate hikes and slower domestic growth. However, the relative strength of the U.S. economy remains a tailwind for the dollar.

We believe a deal on Brexit is likely, which could signal a rise in interest rates by the Bank of England. Both of these events would support the U.K. pound, which is undervalued in our estimation.

We anticipate the yen and the euro to strengthen modestly throughout 2019, but expect to see continued currency depreciation with the yuan, as China continues to ease policy in an effort to stimulate growth.



Ivy Investments is recognized for inventive, actively-managed, global investing strategies that help investors best meet their long-term goals. Our roots date to 1937 and, over the years, we've built our time-tested investment process within an authentic and demanding culture — one that values preparedness, collaboration and accountability. These values extend from our broad internal investing capability, which reaches all major asset classes, to our sub-adviser partners, to the distribution team that supports advisors and our clients.

Our approach seeks consistently to deliver highly competitive, long-term results. Our motivation is the understanding that it's not our money we are managing; it's our investors. It's their trust that drives us. We work hard to earn it each and every day.

Past performance is not a guarantee of future results. Risk factos: Investment return and principal value will fluctuate, and it is possible to lose money by investing. International investing involves additional risks, including currency fluctuations, political or economic conditions affecting the foreign country, and differences in accounting standards and foreign regulations. These risks are magnified in emerging markets. Fixed income securities are subject to interest rate risk and, as such, the net asset value of a fixed income security may fall as interest rates rise. Investing in below investment grade securities may carry a greater risk of nonpayment of interest or principal than higher-rated bonds. Investing in the energy sector can be riskier than other types of investment activities because of a range of factors, including price fluctuation caused by real and perceived inflationary trends and political developments, and the cost assumed by energy companies in complying with environmental safety regulations. These and other risks are more fully described in a Fund's prospectus.

The opinions expressed are those of lvy Investment Management Company and are not meant as investment advice or to predict or project the future performance of any investment product. The opinions are current through December 2018, are subject to change at any time based on market and other current conditions, and no forecasts can be guaranteed. This commentary is being provided as a general source of information and is not intended as a recommendation to purchase, sell, or hold any specific security or to engage in any investment strategy. Investment decisions should always be made based on an investor's specific objectives, financial needs, risk tolerance and time horizon.

IVY INVESTMENTS® refers to the investment management and investment advisory services offered by Ivy Investment Management Company, the financial services offered by Ivy Distributors, Inc., a FINRA member broker dealer and the distributor of IVY FUNDS® mutual funds and IVY VARIABLE INSURANCE PORTFOLIOS™, and the financial services offered by their affiliates.

Before investing, investors should consider carefully the investment objectives, risks, charges and expenses of a mutual fund. This and other important information is contained in the prospectus and summary prospectus, which may be obtained at ivyinvestments.com or from a financial advisor. Read it carefully before investing.